

PATENT SPECIFICATION



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PROVISIONAL SPECIFICATION.

Improvements in or relating to Chairs or Sleepers for Light Railways.

I, THOMAS FRANKS, a British subject, of Pleck Road, Walsall, Staffordshire, do hereby declare the nature of this invention to be as follows:—

5 This invention comprises certain improvements in or relating to chairs or sleepers suitable for light railways, such, for instance, as used in colliery work; and to the manufacture of the same.

10 According to the present invention, I manufacture a chair or sleeper by forging, pressing or casting, the said chair or sleeper being comprised of a plate or member having upraised jaws adapted to 15 lie over the flanges of the rail, and said chair or sleeper is furnished with integral spikes or projections by which it may be retained in relation to the ground, or, in the case of a chair, in relation to a 20 wooden sleeper.

The spikes may, for instance, be provided across the ends of the chair or sleeper and/or along the sides thereof.

25 In a convenient embodiment of the present invention, a chair is manufactured by pressing from a plate of sheet metal. This plate of sheet metal is formed at each side with a depending flange, and two tongues projecting 30 towards each other are cut in the sheet metal and raised upwardly into inclined positions, each of these tongues being adapted to receive a flange of the rail base, the tongue extremities being appropriately spaced to accommodate the 35 vertical web of the rail. Below this

vertical web of the rail is an integral transverse bar.

At each end the chair has bent downwardly from its sheet metal, three or any 40 suitable number of V or other shaped spikes. Such a chair can thus be placed upon the ground surface and the spikes forced into the latter to retain the rail, or the spikes may be driven into a wooden 45 sleeper.

The formation above described may be provided at each end with a sheet metal 50 sleeper, the latter having at each extremity and if desired at intervals along its sides, the integral spikes, so that the sleeper has only to be forced suitably into engagement with the surface upon which it rests to secure it from 55 derangement.

Perforations may also be provided in the chair to permit of security attachment by bolts, nails, dog spikes or the like.

The invention is applicable for use in 60 connection with any section of rail or sleeper, and to any gauge of railway.

The side flanges may, if desired, be omitted, whether or not spikes are provided along the sides of the chair or 65 sleeper.

Dated this 14th day of March, 1922.
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Fellow of the Chartered Institute of

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Agent for the Applicant,
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COMPLETE SPECIFICATION.

Improvements in or relating to Chairs or Sleepers for Light Railways.

I, THOMAS FRANKS, a British subject, of Pleck Road, Walsall, Staffordshire, do hereby declare the nature of this 75 invention and in what manner the same

is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention comprises certain improvements in or relating to chairs or sleepers for light railways, such for instance as are used in collieries and the like.

Metal chairs or sleepers have already been proposed in various forms, having downturned integral spikes or projections adapted to be driven into a wooden sleeper or into the ground, and having various means such as dog spikes, wedges, and upraised integral or detachable jaws for engaging the base flanges of the rail.

The present invention more particularly relates to metal chairs or sleepers of a one-piece construction and of the type having an opposed pair or opposed pairs of upraised integral jaws disposed on opposite sides of an integral transverse bar or bars for engagement over the opposite pair or pairs of lateral base flanges of a rail or pair of rails.

According to the present invention an improved construction of chair or sleeper of this type comprises a body plate or member, an opposed pair or opposed pairs of upraised integral jaws disposed on opposite sides of an integral transverse bar or bars for engagement over the opposite pair or pairs of lateral base flanges of a rail or pair of rails, a series of integral spikes or projections downturned from the two opposite ends of said body plate or member, and a pair of plain flanges downturned from the two opposite sides of said body plate or member.

In order that this invention may be clearly understood and readily carried into practice, reference may be had to the appended explanatory drawings, upon which:—

Figure 1 is a plan view of a chair according to this invention.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a section on line 3—3 of Figure 1.

In carrying the present invention into effect, the chair or sleeper may be made by a forging, pressing, or casting operation, for example a chair may be manufactured by pressing from a plate of sheet metal. This plate of sheet metal is formed at each side with a depending flange *a*, and two tongues or jaws *b* projecting

towards each other are cut in the sheet metal and raised upwardly into inclined positions, each of these tongues or jaws *b* being adapted to receive a flange of the rail base, the tongue or jaw extremities being appropriately spaced to accommodate the vertical web of the rail. Below this vertical web of the rail is an integral transverse bar *c*.

At each end the chair has bent downwardly from its sheet metal, three or any suitable number of V or other shaped spikes *d*. Such a chair can thus be placed upon the ground surface and the spikes *d* forced into the latter to retain the rail, or the spikes may be driven into a wooden sleeper.

The formation above described may be provided at each end of a sheet metal sleeper, the latter having at each extremity the integral spikes, so that the sleeper has only to be forced suitably into engagement with the surface upon which it rests to secure it from derangement.

Perforations *e* may also be provided in the chair to permit of security attachment by bolts, nails, dog spikes or the like.

The invention is applicable for use in connection with any section of rail or sleeper, and to any gauge of railway.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

A chair or sleeper of the type referred to, comprising a body plate or member, an opposed pair or opposed pairs of upraised integral jaws disposed on opposite sides of an integral transverse bar or bars for engagement over the opposite pair or pairs of lateral base flanges of a rail or pair of rails, a series of integral spikes or projections downturned from the two opposite ends of said body plate or member, and a pair of plain flanges downturned from the two opposite sides of said body plate or member.

Dated this 12th day of December, 1922.

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Fig. 1.

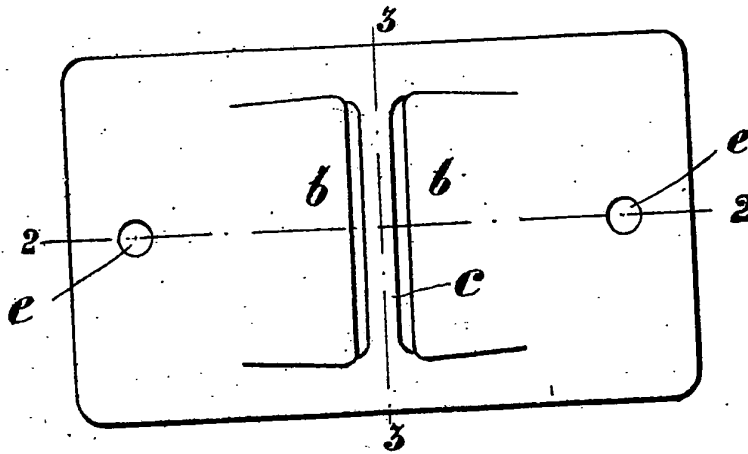


Fig. 2.

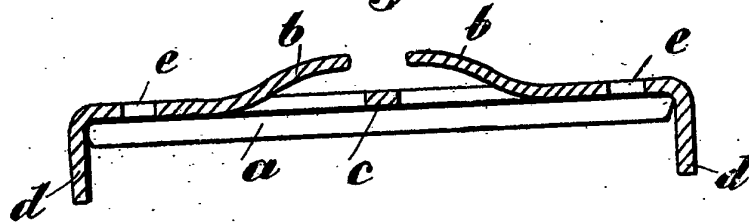
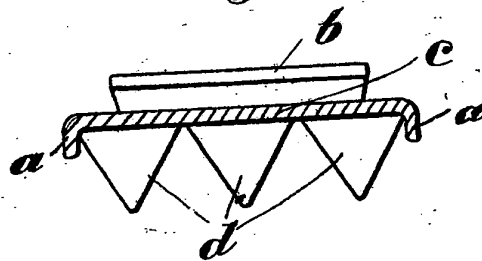


Fig. 3.



Malby & Sons, Photo-Litho

[This Drawing is a reproduction of the Original on a reduced scale]